

Summary Statement of the LNG Producer-Consumer Conference
Tokyo, September 10, 2013

Ministry of Economy, Trade and Industry
APERC

The LNG Producer-Consumer Conference was held in Tokyo on September 10, 2013. The conference was attended by four Ministers, including Minister of Economy, Trade and Industry Toshimitsu Motegi, who served as the host, and more than 1,000 delegates from 50 countries, regions and international organizations—including government and company officials and researchers from LNG producing and consuming countries. The conference was hosted by the Ministry of Economy, Trade and Industry, Japan and APERC.

Opening, Keynote Speeches

H.E. Mr. Toshimitsu Motegi, Minister of Economy, Trade and Industry, Japan: LNG prices are substantially higher in Japan than elsewhere. To be more precise, the LNG price in Japan is fourfold the price in the U.S. Therefore, avoiding high LNG costs is one of the priority challenges to be addressed for Japan. We are currently working on increasing cooperation among LNG-consuming nations and regions that share similar challenges, such as India and the EU. We welcome the establishment of an international joint study group on LNG. When we take an overview of the global LNG supply, we see a major change with the emergence of the U.S. as a supplier of LNG to Asian markets, such as through Freeport LNG getting export approval, a decision that is expected to lead the way for LNG exports to Japan. We welcome the change as an effective way to achieve stable energy supplies and, at the same time, to lower LNG import prices. We look forward to seeing the two remaining Japan-related projects being approved soon. LNG projects are also starting up in other regions, which will enhance the world's LNG supply capacity by around 30 percent by 2018. For LNG producers, such moves signify the arrival of a new era, a time fraught with competition for more attractive prices and trading conditions. My ministry will begin to study further ways to secure competitive and stable LNG supplies by promoting new types of joint procurement from multiple LNG importing entities from this fall. The door has been opened for the competitive supply of LNG to the market. It is important for producers and consumers to take up this change and to pursue discussions at every level. This conference is an important platform for such discussions. Japan will continue to support the LNG Producer-Consumer Conference, and we hope to be able to contribute to the

development of the LNG market.

H. E. Dr. Mohammed Bin Saleh Al-Sada, Minister of Energy and Industry, Qatar: The world's LNG market is currently separated into three blocks – North America, Europe and Asia – through different pricing systems and forecasts for supply and demand. This situation is expected to continue for a while. The start-up of the LNG project in the U.S. is expected to take some time and thus it is not realistic to expect that the oil-linked LNG pricing model will be overturned in the near future. The final investment decision for LNG depends on a long-term commitment from consumers; for the long-term stability of the LNG market, it is necessary for both producers and consumers to share responsibility. Collaboration between LNG producers and consumers will promote stability in the market in the future, thereby reducing geopolitical risks and bringing down prices.

Session 1: Actions by consuming countries towards competitive LNG procurement

Special Lecture:

H.E. Dr. M. Veerappa Moily, Minister of Petroleum and Natural Gas, India: Global demand for liquefied natural gas is expected to grow, especially in the Asia-Pacific region. Even now, the Asia-Pacific region is a major market that accounts for 69 percent of the world's total LNG trade by volume. Yet, compared to North America and Europe, the Asia-Pacific market is more often than not bound by the irrational high price known as the “Asian premium” as well as contracts that contain inflexible conditions, such as the destination clause. Those problems need to be corrected in order to create fair and transparent LNG market. India and Japan have shared those problems through a bilateral study project, the progress of which was released yesterday.

H.E. Mr. Han Jinhyun, Vice Minister for Trade and Energy, Ministry of Trade, Industry and Energy, Republic of Korea: The shale gas revolution and responses to climate change issues have prompted a shift from dependence on oil and coal to natural gas. We are now on the brink of a “golden age” for natural gas. However, there are concerns over the lack of flexibility in the global LNG market, which should rightfully guarantee active and free trade. In other words, countries in Northeast Asia are cut off from the pricing system that is applied to other regions of the world and are forced to pay the most expensive prices for their LNG supplies. In response to this, Asian consumer countries should increase their collaborative efforts to eliminate the destination clause and oppose inflexible pricing structures, by trying to secure Henry Hub-linked pricing, for example.

Mr. Michael Hager, Head of the Cabinet of Günter Oettinger, European Commission:

This conference serves as a precious opportunity to seek feasible solutions to a number of issues that the global natural gas market now faces. With a population of 500 million, Europe is a major consumer of natural gas, two thirds of which is imported from outside Europe. In the interests of energy security, we are seeking ways to diversify natural gas procurement. We consider abolition of the destination clause and the construction of a competitive LNG market that appropriately reflects the supply-demand situation to be extremely important. We welcome the ongoing research cooperation on LNG between Japan and the European Commission.

Mr. Sheng-Chung Lin, Chairman, CPC Corporation: Dramatic changes are now taking place in the world's LNG market. First, it should be noted that countries' nuclear energy policies will likely affect the future of the LNG market. Second, there has been the emergence of shale gas in North America. Third, because most contracts are based on oil-linked price systems, soaring crude oil prices add a greater burden to consumers while increasing profits for the suppliers. In response, CPC aims to diversify LNG procurement, strengthen its LNG terminal and seek new types of pricing structures. In order to build a new pricing structure—including the creation of an Asian hub—we hope to cooperate and work with all those involved.

Mr. Hirobumi Kawano, President, Japan Oil, Gas and Metals National Corporation (JOGMEC): In light of the recent increase in imports and purchases of LNG, as well as the wide gap in purchase prices compared to other countries, JOGMEC is seeking a diversification of LNG sources and searching for a diversified pricing system. JOGMEC continues to offer not only financial assistance but technological support to LNG-producing countries, in particular Australia, Canada and Mozambique. JOGMEC looks forward to Japanese imports from Canada and Mozambique which are conducive to diversification of the pricing system. Furthermore, starting in June 2013, JOGMEC launched a 1 trillion yen fund to provide debt guarantees to LNG projects that will promote a reduction in Japan's LNG imports costs — a move that provides more active support to Japanese companies.

Special Lecture

Mr. Hiroshi Okuda, Governor, Japan Bank for International Cooperation (JBIC): We are concerned that LNG prices for Asian consumers, which are linked to crude oil prices, will remain high. In order for LNG to remain a long-term, stable energy source,

LNG-producing regions must become more diversified; the pricing formula must be reviewed; the destination clause must be alleviated to enhance the flexibility of LNG sales and purchasing contracts; and new technologies – including development of non-conventional gas resources – must come in to play. A “wider range of options” is needed. In order for LNG to remain a long-term, stable energy source, it is important to promote a mutually beneficial spirit of reciprocity among producers and consumers.

Session 2: The situation and direction of producers related to LNG supply

SKKMIGAS, Indonesia: Indonesia’s LNG exports are decreasing significantly and most existing long-term contracts have expired, or are about to expire. It is expected that domestic demand for LNG will increase in the future. Although fulfilling domestic needs is the priority, Indonesia will continue to take responsibility for meeting the needs of our traditional LNG consumers, albeit at much smaller volumes than it used to.

ExxonMobil Gas & Power Marketing Company: Annual LNG demand is expected to exceed 600 million tons by 2040, of which about 75 percent will go to Asian-Pacific countries. In order to meet the soaring demand, we need to secure a significant volume of supply. However, in addition to the development of new technology, producers face a short-term tightening of supply/demand, rising project costs, appropriate capital investment costs and difficulties in securing labor—thus, producers need a long-term commitment from consumers and their support by maintaining appropriate prices. Furthermore, it is necessary to have policies that support predictable environmental regulations, fair competition, ensure open import practices and the strict observance of contracts.

Chevron Gas and Midstream: Demand for LNG will continue to grow and, even if we are to shore up current supply capacities with anticipated supplies from projects that are now under construction, it is expected that there will still be a 150 million ton gap in demand and supply by 2025. There is a high risk factor pertaining to LNG development projects. In order to secure stable supplies, producers and customers should commit to working together through investing in projects, diversifying supply points and partnering on LNG development. Such approaches contribute to a future that ensures a stable LNG supply.

TOTAL S.A.: The world’s LNG demand shows 5 percent annual growth during the 20 years between 2010 and 2030. In order to meet that demand, LNG development in new supply areas – including North America, East Africa and the Arctic – in addition to

traditional supply areas, becomes crucial. And for such development to go ahead, appropriate contracts and pricing structures for the supplier and consumer become necessary. In the short term, shale gas production in North America will remain competitive, but linking the price to the Henry Hub will eventually lose its edge. There is a possibility even for oil-linked prices to remain competitive, depending on the structure of the price formula.

Shell: Natural gas is the energy source best suited to providing a stable supply of energy in the future and as an answer to the issue of climate change. Thus, it is expected that there will be a rise in demand of more than 60 percent in the next 20 years. In order to secure a stable, inexpensive supply of natural gas, technological innovation becomes absolutely necessary and continuous investment in innovation is the key. Governments play a major role in supporting such innovations.

JSC Gazprom: Gazprom is now focusing on LNG projects for Asia, including the Sakhalin II project, in addition to the existing pipelines that deliver natural gas to Europe. The Vladivostok project, which is slated to go into operation in 2018, boasts both proximity and abundant reserves, making it a competitive project for the Japanese market. Gazprom believes it will be the first step in further strengthening ties with Japan in the field of natural gas.

Nigerian National Petroleum Corporation: The world's natural gas industry will undergo rapid changes with the emergence of North America's shale gas and other factors, presenting the Asian region as the only attractive market. At the same time, demand for natural gas as an energy source with a low environmental burden is expected to grow. For the LNG market to grow steadily and to ensure a stable supply, it is necessary to have cooperation between producers and consumers in technical innovation and reducing costs, while it also is important for both parties to share the investment risks. Nigeria plans to improve its production capabilities as an LNG producer and hopes to strengthen its relationships with consumer countries, including Japan.

Special Session: Policy discussion by Energy Experts

Agency for Natural Resources and Energy, Ministry of Economy, Trade and Industry, Japan: For Japan, avoiding high LNG costs has become an immediate and critical challenge for Japan. The Japanese government is making efforts to enhance its procurement of stable and low priced fuel. Specifically, we are trying to reform the electric power system by promoting competition among electricity providers and

prompting them to further pursue fuel cost efficiency; pushing for strict assessments of electricity bills that reflect fuel-reduction efforts by electricity providers; and offering financial support through JOGMEC's 1 trillion yen fund to provide debt guarantees to LNG projects that will help reduce Japan's LNG import costs. Japan will continue to implement measures to improve the environment and to allow for stable procurement of low-cost LNG in the future.

Ministry of the Commonwealth Department of Resources, Energy and Tourism, Australia: At present, Australia exports as much as 24.3 million tons of LNG per year. During 2014 and 2015, seven projects will begin operations and the export capabilities will grow to as much as 90 million tons per year, with many additional development projects yet in store. In the Asia-Pacific region, Australia is a low-risk, reliable LNG exporter. In the discussions among LNG producers and consumers regarding price and contract structures, it is important that decisions should be made based on appropriate marketing principles in order to encourage sustainable long-term development.

Alberta Energy, Canada: The Province of Alberta boasts abundant resources of natural gas and crude oil. It plans to export such resources to Asian countries, including Japan, via the Canadian west coast.

EURELECTRIC: While natural gas is the main player in Europe's energy mix, demand for gas has slackened due to an inflow of low-priced coal and the introduction of energy from renewable sources. This is not an ideal situation. We are hoping that an integrated, competitive and flexible gas market would be built in Europe so the gap with the electric power market could be narrowed. Toward that end, there is a need to diversify procurement, improve gas infrastructure and create a reserve system. Long-term contracts and regulations on destinations are hampering consumers' impartial access to natural gas.

Agency for Natural Resources and Energy: The inter-regional gap in import prices for energy is a major issue. The focus is particularly concentrated on the inter-regional gap in import prices of LNG. Given this situation, the demand side could witness the following outcomes: A shift to other energy sources that can be supplied at a competitive price; restraint in demand through energy saving measures or the use of alternative fuels; improved collaboration among importing countries. With a shrinking population and efforts to reduce costs on the consumer side, only those businesses that are able to provide fuel at competitive prices will win in the future. We sincerely hope

that by setting the most suitable price, we will see a win-win situation on the supply side, the demand side and for the environment.

International Energy Agency (IEA): LNG is essential in achieving an inter-regional balance in the supply of natural gas. At present, the LNG market has numerous inefficiencies. The IEA considers that improving the transparency of the LNG market as well as its price is important. It is true that establishing a trading hub is important, but a hub would not reduce prices. Rather, supply and demand determines prices. We have seen positive movements in Japan recently regarding the trading hub and a mutual interaction is developing between electric power and gas.

Special Presentation

H.E. Ms. Maria van der Hoeven, Executive Director, International Energy Agency: The IEA expresses support for the multilateral joint study group on LNG, mentioned by Minister Motegi. Natural gas continues to grow as the main source of energy in the world, and particularly in Asia, it is projected that demand will double in the next two decades. Nevertheless, the world's natural gas market is divided and, despite the recent shale gas revolution, Asia is faced with surging natural gas prices linked to petroleum prices. This is having a serious impact on Asian economies. While LNG prices should reflect the demand-and-supply balance within the market, a highly efficient market does not necessarily provide cheap gas. Due to the restraint in LNG supply and an increase in demand, LNG demand and supply is tight. However, portfolio LNG and re-exports are playing an important role vis-à-vis the demand and supply balance. With the expansion of the market, is not the destination clause losing its effectiveness? I hope that we can establish a well-functioning market based on a balance of demand and supply in Asia.

Session 3: New Players, New Projects and New Business

Freeport LNG Development L.P.: The Freeport base, which marketed re-gasified imported foreign LNG to the domestic U.S. market, has been transformed into a bidirectional base through the introduction of exports, as a result of the shale gas revolution in the United States. It has a capacity of 5 million tons per annum starting from around 2017. The capacity of three lines of the liquefied project have all been reserved in advance. LNG (including supplies for Toshiba and SK, announced last night) will be exported mainly for Japan. U.S.-produced LNG is competitively priced and, as a new LNG supply base for Japan and other Asian countries, will contribute to diversification in procurement.

Dept. of Natural Resources, State of Alaska: Deposits of conventional gas exceeding 200 trillion cubic feet are available at the North Slope mining site in Alaska. In addition, there is a high probability of a large reserve of non-conventional gas and petroleum. In Alaska, two LNG projects are ongoing, one belonging to a private entity and the other to the Alaska State Gas Development Corporation. If these projects are realized, their output will provide a stable supply of inexpensive LNG for Japan, in terms of geopolitical considerations, price advantage, the trustworthiness of Alaska as a partner and the credibility of the projects.

Natural Resources Canada: Amid the dramatic changes taking place in the world's LNG markets, Canada faces the major task of expanding natural gas exports and diversifying its export destinations. The Government of Canada, in order to become a global supplier of LNG in the future and to provide attractive and competitive supplies, has prepared a range of policies based on a stable political system with a strong financial base and including a commitment to infrastructure improvements, regulatory reforms on project developments, human resources training and a corporate tax system beneficial to corporate activities, etc.

The Province of British Columbia: The province is highly competitive in LNG production. It has a number of strong points, such as freight merit to Asia, low liquefaction costs, abundant reserves, a large and skilled labor force, stable policies, efficient and rational regulations and an established tax system. The province is contributing to the stable supply of LNG to Asia as a close base of resources for the region.

Apache Corporation: Apache Corporation is the largest independent producer in North America and is built on a strong financial base and advanced technology. Through the firm's LNG project in Western Australia and the Province of British Columbia, Apache Corp. is rising to the challenge of long-term demand for LNG, including diversification of supply and reducing supply risks. The Province has the advantage of a plentiful reserve of shale gas and stable support from the central and provincial governments. Moreover, it benefits from being a close resource base for Asia, thereby contributing to providing a stable supply to meet growing demand in Asia.

Anadarko Petroleum Corporation: Progress at the offshore gas field in Mozambique owned by Anadarko is proceeding smoothly and it will become one of the world's largest gas fields in the future. Mozambique is expected to become the world's

third-largest LNG producer within a decade and the nation's LNG will contribute greatly to diversifying energy sources and providing stable energy supplies to Japan and Asia.

BG Group plc: The world's LNG demand saw annual growth of 5 percent until 2025 and a demand-supply gap of 150 million tons is projected. However, this all depends on future developments on the supply side. The United States has forecast that it will become the source of supplies to meet the increasing demand. The BG Group, in order to meet that increasing demand, will contribute by establishing a flexible and stable supply system through diverse LNG projects and their marketing, including projects in Australia, Sabine Pass (U.S.) and Tanzania.

Session 4: New Procurement Behavior by Consumers

Tokyo Electric Power Co.: We hope the inter-regional gap in prices that has emerged in the world's LNG market will narrow due to further expansion of inter-regional trade and an increase in new supply sources (global convergence). This is a pressing issue for Japanese electric power companies, which are unable to pass on LNG prices to electricity fees. Through upstream participation, reviews of contract forms, such as increased destination-free LNG procurement, and diversification of procurement sources, we hope to bring about stable, flexible and inexpensive LNG procurement and electric power supply.

Tokyo Gas Co.: The problem of high LNG prices in Asia, which was pointed out at this same conference last year, remains unresolved. In order to tackle this issue, Tokyo Gas has undertaken three measures to diversify supply sources, the terms and conditions of contracts, and globalization of LNG networks. One of these measures is the procurement of LNG from Cove Point LNG in the United States. I would like to propose that all those concerned with LNG and LNG related industries should endeavor to build cooperative relationships and to find solutions to resolve the LNG cost problems in Asia in order to achieve sustainable growth throughout the entire LNG industries.

The Gas Authority of India: Demand for LNG continues to rise, with demand in the Asia-Pacific region particularly visible in China and India. In order to cope with the rising demand, India plans to build a LNG terminal and natural gas grids. Given the situation and reflecting the needs of major consuming countries, there is a need to build a transparent price system. To achieve this, it is vital for Asian consumers to cooperate.

In order to create a golden era for natural gas in the future, partnerships will be vital. I hope that producers and consumers make efforts to understand each other and to enhance their flexibility.

GDF SUEZ LNG: While recent negotiations to reduce pipeline gas prices are proceeding in the European gas market, where demand and supply balance is weak, due to the revival of coal thermal power plants and increases in energy from renewable sources. However, a gap in demand and supply totaling 70 bcm of LNG is projected to emerge in 2030. It is essential to diversify destinations and contracts in order to secure an inexpensive and stable supply of LNG. GDF Suez is now developing projects in Cameron (U.S.), Bonaparte (Australia) and Cameroon, including a LNG liquefaction facility for the Asia-Pacific region. Such endeavors by GDF Suez will contribute greatly to diversification in procurement by Asian countries, particularly Japan.

Energy Market Authority, Singapore: Singapore began importing LNG in 2006 to cope with the conversion of its domestic electric power fuel to natural gas. To procure stable and low-priced LNG, EMA is endeavoring to diversify procurement sources and price modes, particularly incorporating small lots, and short-term contracts. Similar to petroleum, we think that it is possible to make Singapore the hub for LNG in Asia.

Institute of Energy Economics, Japan: Demand for LNG around the world, including in Japan, is projected to rise in the future. However, the supply volume is expected to exceed demand to a substantial degree and demand and supply concerns are expected to slacken. Given this situation, the rise in prices will strengthen pressure to reduce demand and is a problem that should not be overlooked. The petroleum price-linked method – which is one of the causes for the so-called Asian premium – is losing its rationality and will bring about a lose-lose situation for producers and consumers alike. We will establish a multilateral joint study group on LNG to examine the ideal form of LNG trading, including price formation. I would like to report the results of the study group at the next conference, if it is to be held, in 2014.